

# United States District Court, Northern District of Illinois

Name of Assigned Judge or Magistrate Judge	Amy J. St. Eve	Sitting Judge if Other than Assigned Judge	
CASE NUMBER	97 C 8746	DATE	12/23/2002
CASE TITLE	Finn sugar Bioproducts, Inc. vs. The Amalgamated Sugar Company, LLC		

[In the following box (a) indicate the party filing the motion, e.g., plaintiff, defendant, 3rd party plaintiff, and (b) state briefly the nature of the motion being presented.]

## MOTION:

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## DOCKET ENTRY:

(1)	<input type="checkbox"/>	Filed motion of [ use listing in "Motion" box above.]
(2)	<input type="checkbox"/>	Brief in support of motion due _____.
(3)	<input type="checkbox"/>	Answer brief to motion due _____. Reply to answer brief due _____.
(4)	<input type="checkbox"/>	Ruling/Hearing on _____ set for _____ at _____.
(5)	<input type="checkbox"/>	Status hearing[held/continued to] [set for/re-set for] on _____ set for _____ at _____.
(6)	<input type="checkbox"/>	Pretrial conference[held/continued to] [set for/re-set for] on _____ set for _____ at _____.
(7)	<input type="checkbox"/>	Trial[set for/re-set for] on _____ at _____.
(8)	<input type="checkbox"/>	[Bench/Jury trial] [Hearing] held/continued to _____ at _____.
(9)	<input type="checkbox"/>	This case is dismissed [with/without] prejudice and without costs[by/agreement/pursuant to] <input type="checkbox"/> FRCP4(m) <input type="checkbox"/> Local Rule 41.1 <input type="checkbox"/> FRCP41(a)(1) <input type="checkbox"/> FRCP41(a)(2).
(10)	<input checked="" type="checkbox"/>	[Other docket entry] Enter Memorandum Opinion and Order. Plaintiff's Motion for Summary Judgment on Defendants' inequitable conduct claim is denied.
(11)	<input checked="" type="checkbox"/>	[For further detail see order attached to the original minute order.]

<input type="checkbox"/> No notices required, advised in open court. <input type="checkbox"/> No notices required. <input type="checkbox"/> Notices mailed by judge's staff. <input type="checkbox"/> Notified counsel by telephone. <input checked="" type="checkbox"/> Docketing to mail notices. <input checked="" type="checkbox"/> Mail AO 450 form. <input type="checkbox"/> Copy to judge/magistrate judge.	TH <input checked="" type="checkbox"/> courtroom deputy's initials	U.S. DISTRICT COURT CLERK 02 DEC 23 PM 5:37 10	number of notices DEC 24 2002 date docketed AIF docketing deputy initials date mailed notice mailing deputy initials	Document Number 179
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**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

FINNSUGAR BIOPRODUCTS, INC., )

Plaintiff, )

v. )

THE AMALGAMATED SUGAR )  
COMPANY, LLC, and ARI, )

Defendants. )

No. 97 C 8746

Honorable Amy J. St. Eve

**DOCKETED**

DEC 24 2002

**MEMORANDUM OPINION AND ORDER**

Plaintiff Finnsugar Bioproducts, Inc. has moved for summary judgment on the affirmative defense and counterclaim filed by Defendants The Amalgamated Sugar Company and ARI alleging that Finnsugar engaged in inequitable conduct before the Patent and Trademark Office ("PTO") in the procurement of U.S. Patent No. 5,795,398 ("the '398 patent"). For the reasons set forth below, Plaintiff's Motion for Summary Judgment is denied.

**LEGAL STANDARD**

Summary judgment is proper when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). A genuine issue of triable fact exists only if "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Pugh v. City of Attica*, 259 F.3d 619, 625 (7<sup>th</sup> Cir. 2001) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 2510, 91 L.Ed.2d 202 (1986)).

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The party seeking summary judgment has the burden of establishing the lack of any genuine issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23, 106 S.Ct. 2548, 2552, 91 L.Ed.2d 265 (1986). The party that bears the burden of proof on a particular issue, however, may not rest on its pleadings but must affirmatively demonstrate that there is a genuine issue of material fact. *Id.* at 324, 106 S.Ct. at 2553. The Court “considers the evidentiary record in the light most favorable to the non- moving party, and draws all reasonable inferences in his favor.” *Lesch v. Crown Cork & Seal Co.*, 282 F.3d 467, 471 (7<sup>th</sup> Cir. 2002). The Court accepts nonmovants’ version of any disputed facts but only if it is supported by relevant, admissible evidence. *Bombard v. Fort Wayne Newspapers, Inc.*, 92 F.3d 560, 562 (7<sup>th</sup> Cir. 1996).

## **BACKGROUND**

### **A. Procedural Background**

On November 15, 1999, the parties filed various motions for summary judgment, including Defendants’ motion for summary judgment arguing that the ‘398 patent was invalid under the “on sale bar” of the Patent Act. On March 28, 2001, Judge Coar granted Defendants’ motion, holding that the ‘398 patent was invalid under the on sale bar. *See Finnsugar Bioproducts, Inc. v. Amalgamated Sugar Company, LLC*, No. 97 C 8746, 2001 WL 303683 (N.D. Ill. March 28, 2001) (hereinafter “*Finnsugar I*”).<sup>1</sup>

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<sup>1</sup> Finnsugar moved for reconsideration, but Judge Coar denied that motion on March 25, 2002. *See Finnsugar Bioproducts, Inc. v. Amalgamated Sugar Company, LLC*, No. 97 C 8746, 2002 WL 460812 (N.D. Ill. Mar 26, 2002). After the case was transferred to this Court, Finnsugar filed a renewed motion for reconsideration, which this Court denied on October 10, 2002. *See Finnsugar Bioproducts, Inc. v. Amalgamated Sugar Co., LLC*, No. 97 C 8746, 2002 WL 31309234 (N.D. Ill. Oct 10, 2002).

## **B. The '398 Patent**

The '398 patent is the third in a series of Finnsugar patents asserted in this case, each involving a technology known as "chromatographic separation." This technology takes advantage of the varying physical and chemical properties of different components to separate them from beet molasses, permitting the recovery of sucrose, betaine, and a number of other components. The sucrose and betaine recovered from beet molasses are used as a nutritional supplement for animals.

The first patent, U.S. Patent No. 4,359,430 ("the '430 patent"), discloses a "batch" chromatographic separation process. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 1.) The second patent, U.S. Patent No. 5,127,957 ("the '957 patent"), discloses a different process called "simulated moving bed" ("SMB") chromatography, using multiple columns in one series loop. (*See id.*, Ex. 2.) The '957 patent's sequential SMB process represented an improvement over the '430 patent's batch process. (*See id.*, Ex. 2 at Col. 1:42-2:36.)

The third patent, the '398 patent, discloses and claims the use of two known chromatographic separators in succession, with the first being an SMB chromatography process. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 4.) The '398 patent admits that the first fractionation (or first loop) may be "carried out with prior art SMB methods and apparatus." (*Id.* *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 3, at Col. 4/ln 46-51.) The '398 patent also admits that the second fractionation (or second loop) "may be carried out by known chromatographic separation methods and apparatus." (*See* R. 118-

1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 4. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 3, at Col. 4/ln 52-55.)<sup>2</sup>

Initially, the patent examiner rejected the '398 claims as obvious in view of the '957 patent. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, at ¶ 5. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-82 (the '957 patent disclosure "is deemed to read upon Applicants' second fractionation step recited in claim 1.")) The Applicants filed a written response with the examiner on April 9, 1997. (*See id.*, Ex. 6 at 398-88.) The Applicants argued that the '957 patent "neither discloses nor suggests the claimed two stage separation method," and they claimed that their method yielded an "unexpected" benefit in the form of improved sucrose and betaine recovery and purity. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 6. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-90.)

On July 1, 1997, the patent examiner again rejected the Applicants' claims, based on the '957 patent. The examiner noted that "[w]hile [the '957 patent] does not explicitly disclose a second separation step, mere repetition of the initial separation step . . . would have been within the level of skill in the art. The concept of duplication is not patentable." (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 7. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-93 to 96.)

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<sup>2</sup> The inventors listed on the '398 patent application include Goran Hyoky, Hannu Paananen, Kaj-Erik Montén, Keikki Heikkilä, and Jarmo Kuisma. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-1.) The assignee listed on the '398 patent application is Cultor, Ltd. (*Id.*) Cultor is apparently a parent company of Finnsugar, the assignee of the '398 patent. (*See* R. 92-1, Defs.' Mem. in Support of Sum. J. on § 102(b), p. 2, n.2.) The inventors and Cultor are referred to collectively herein as "the Applicants."

During a meeting with the Applicants on October 16, 1997, the patent examiner admitted that he did not understand that the second fractionation step described in the original claim was separate and different from the first. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 9.) Accordingly, on December 8, 1997, the Applicants filed an amendment and response to make clear that "the second separation (fractionation) step is performed in a separate fractionator (loop)" and that the "second fractination [sic] must be different from the first fractionation." (*Id.*, ¶ 9. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-103.)

After the Applicants filed their amendment and response, the patent examiner allowed the claims. In the official "Reasons for Allowance" the examiner stated:

[T]he prior art of record fails to teach or suggest the claimed process for separating sucrose and a dissolved component from a beet-derived sucrose-containing material, wherein said material [is] fractionated in a first loop to produce first and second fractions, followed by fractionating the second fraction in a second loop to produce third and fourth fractions. Such a process results in greater sucrose yield along with higher production of betaine. [The '957 patent] disclose a process for separating betaine from beet molasses using a chromatographic simulated moving bed system. The betaine is eluted during the same cycle as sucrose and rest molasses. The process of [the '957 patent] is not a two-stage separation process, as set forth in Applicants' claims.

(*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 11. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-109 to 110.)

### **C. Prior Commercial Offers for Sale**

In 1989, Finnsugar and Southern Minnesota Beet Sugar Cooperative ("SMSC") entered into a contract under which Finnsugar supplied SMSC with the technology to implement a

three-fraction separation process of U.S. sugar beet, disclosed in the earlier '957 patent. (*See* R. 107-1, Pl.'s LR 56.1(b)(3) Resp. on § 102(b), ¶¶ 10-11.) Later, Finnsugar and SMSC entered into an agreement to undertake a Joint Research Project "to enhance and improve the separation technology at the Plant." (*See* R. 107-1, Pl.'s LR 56.1(b)(3) Resp. on § 102(b), ¶ 21.)

On March 23, 1993, Inventor Hyoky generated a "process flow scheme and material balance for separation of betaine at Renville" noting that "Finnsugar Engineering is preparing a proposal for installing this process." (*Id.*, ¶ 24.) Inventors Hyoky and Monten met with SMSC president, Irvin Zitterkopf to discuss a proposal to implement a two-stage separation process at the Renville plant. (*See* R. 93-1, Defs.' LR 56.1(a)(3) Statement on § 102(b), Zitterkopf Dep. at 62-63.) As a result of that meeting, an eight month study of the economics and details of the matters discussed was initiated. By September 1993, inventor Hyoky concluded that a particular configuration for betaine upgrading, called "M9B3," was the "most promising alternative" to use at Renville. (*See* R. 107-1, Pl.'s LR 56.1(b)(3) Resp. on § 102(b), ¶ 41). Ultimately, the M9B3 process developed into the '398 patent. (*See* R. 93-1, Defs.' LR 56.1(a)(3) Statement on § 102(b), Hyoky Dep. at 93-94, 206-208; *see also id.*, Zitterkopf Dep. at 79-81.)<sup>3</sup>

In January 1994, inventor Hyoky and SMSC engineer Jean-Pierre Monclin completed a final Joint Research Report recommending the high-capacity system and the M9B3 system. (*See* R. 107-1, Pl.'s LR 56.1(b)(3) Resp. on § 102(b), ¶¶ 49, 53. *See also* R. 93-1, Defs.' LR 56.1(a)(3) Statement on § 102(b), Ex. 75 at F36633, F36641; *id.*, Zitterkopf Dep. at 91-92; *id.*, Monten Dep. at 209-11, 215-20.) The January Report attached "detailed technical and

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<sup>3</sup> Finnsugar has denied that the M9B3 configuration was incorporated by the '398 patent. Judge Coar found, however, that Finnsugar failed to dispute the deposition testimony of either Hyoky or Zitterkopf. *See Finnsugar I*, 2001 WL 303683, at \*2, n.1.

feasibility calculations, and descriptive graphs,” concerning the M9B3 proposal, and a flow chart describing the M9B3 method. (*Id.*, Ex. 75, at F36641-42.) The Report projected an investment cost of \$4.6 million and a payback time of 1.9 years for the M9B3 proposal. (*See* R. 120-1, Defs’ Obj. to Pl.’s LR 56.1(b)(3) Resp. on § 102(b), ¶ 52.)

In *Finnsugar I*, Judge Coar held that Finnsugar’s offer to install the M9B3 proposal qualified as a commercial sale sufficient to invoke the on sale bar under 35 U.S.C. § 102(b). Specifically, Judge Coar found that “example 3 of the ‘398 patent was successfully performed in December 1993” and that the process was therefore “ready for patenting.” *Finnsugar I*, 2001 WL 303683, at \*7. Further, Judge Coar held that “[t]he transaction at issue undisputedly was a ‘sale’ in a commercial law sense. . . . Finnsugar offered to install the M9B3 process at SMSC’s Renville plant, prior to the critical date, in order to increase commercial prospects for itself as well as SMSC.” *Id.* at \*5 (citing *In re Caveney*, 761 F.2d 671, 676 (Fed. Cir. 1985)). *See also id.* at 6 (“Finnsugar offered to install the MB393 process at SMSC in order to gain a return.”).

#### **D. Alleged Prior Art**

Defendants contend that there are several examples of material information in the prior art that were known to the Applicants but not disclosed to the PTO, including U.S. patent 5,177,008 to Kampen (“Kampen”) and U.S. Patent number 4,001,112 to Barker (“Barker”).

##### **1. Kampen**

Kampen discloses a two-stage chromatographic separation process for separating glycerol and betaine from beet stillage. (*See* R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 13.) Beet stillage, like beet molasses, is derived from sugar beets and can be called a beet-derived glycerol-containing material. (*Id.*) Kampen’s Example 8 discloses that beet stillage



is processed in “the first chromatographic separation system in which a mixture of betaine plus glycerol is separated from the rest.” (*Id.*, ¶ 14.) Defendants’ expert Michael Cleary testified that the “first chromatographic separation system” is an SMB process. (*See* R. 98-1, Defs.’ LR. 56.1(b)(3) Resp. on Inequitable Conduct, Cleary § 103 Dec., at ¶ 7.)<sup>4</sup> Then, the betaine/glycerol stream from the first separator is “fed to a second, considerably smaller chromatographic system.” (*See* R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, at ¶ 18. *See also* R. 98-1, Defs.’ LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 87, Col. 13/ln 24-26.) Thus, Kampen’s second loop is different from the first loop. (*See* R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, at ¶ 27.)

The Applicants were aware of but did not disclose Kampen. Inventor Paananen discussed Kampen in the application for U.S. patent 5,851,405, which was filed the same day as ‘398 patent application. (*See* R. 98-1, Defs.’ LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 95, at Col. 2/ln 3-19.) This other patent application refers to Kampen’s Example 8 and its disclosure of “several steps of chromatographic separation to recover betaine and glycerol.” (*Id.*, Ex. 95, at Col. 2/ln 3-19.) Inventors Heikkila and Kuisma also knew of Kampen. (*See* R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 31.) On July 18, 1996, while the ‘398 patent application was still pending, they cited Kampen in a paper filed in the application for U.S. patent 5,730,877. (*Id.*)

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<sup>4</sup> Finnsugar disputes this point, arguing that there is no description in Kampen’s Example 8 of the “first chromatographic separation system” and that there is, therefore, no basis for Cleary’s testimony that it is an SMB system. (*See* R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, at ¶ 7.) Contrary to Finnsugar’s suggestion, however, Cleary does point to some evidence from Kampen to support his assertion that “first chromatographic separation system” referred to in Example 8 is an SMB system. Conversely, Finnsugar points to no evidence that “first chromatographic separation system” referred to in Example 8 is *not* an SMB system.

## **2. Barker**

Barker discloses the use of a first SMB separator to produce a stream for further purification in a second, separate SMB system. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 38.)

The Applicants were aware of the Barker patent before they filed the '398 patent application. Inventors Heikkila, Hyoky and Kuisma identified and summarized Barker in a 1990 Disclosure Statement submitted with their application for the '957 patent. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 39.)

Further, Donna Praiss, who prosecuted the '398 patent, was also a patent attorney of record for the '957 patent application. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 39.) Praiss' testimony suggests that she likely had access to the file history for the '957 patent in 1995 and in 1997. (*Id.*, ¶ 48. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Praiss Dep., pp. 97, 131.) Praiss did not have any recollection why all of the prior art references in the '957 patent file were not disclosed in her written correspondence with the PTO or during the meeting with patent examiner in 1997. (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 48. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Praiss Dep., pp. 124-25, 136.)

The Applicants brought Barker to the attention of the PTO in connection with the '398 patent application on January 30, 1998 -- approximately one month after the patent examiner allowed the claims. When the Applicants brought Barker to the attention of the PTO, they conceded that the disclosure was pursuant to "the duty of disclosure requirements of 27 C.F.R. 1.56." (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 50.) The

Applicants claimed, however, that “the information . . . is believed to be no more relevant than that already considered by the examiner . . . .” (*Id.*)

## **ANALYSIS**

### **I. FINNSUGAR’S LR 56.1 STATEMENT**

As an initial matter, Defendants argue that the motion for summary judgment should be denied because Finnsugar failed to submit the statement of material facts supporting summary judgment as required under LR 56.1(a)(3). Indeed, Finnsugar’s LR 56.1 Statement on Inequitable Conduct referred simply to facts relevant to jurisdiction and venue and did not include any facts relevant to the alleged inequitable conduct.

Finnsugar argues that the burden of establishing inequitable conduct lies with Defendants and that it need not assert facts negating this claim. Instead, Finnsugar contends that it can discharge its summary judgment burden merely by pointing to the absence of evidence supporting Defendants’ inequitable conduct claim. Further, Finnsugar submitted a lengthy and detailed Reply to Defendants’ LR 56.1(b)(3) Response on Inequitable Conduct and that there have been repeated rounds of supplemental briefing on Finnsugar’s Motion for Summary Judgment. At this stage then, both Defendants and this Court have the benefit of understanding the purported evidentiary basis for Finnsugar’s contention that summary judgment is appropriate.

Regardless, this Court need not address Defendants’ suggestion that Finnsugar’s LR 56.1 Statement requires denial of its summary judgment motion because, as discussed below, this Court concludes that Defendants have pointed to evidence sufficient to survive summary judgment on their inequitable conduct claim.

## II. DEFENDANTS' INEQUITABLE CONDUCT CLAIM

### A. Legal Standard for Claims of Inequitable Conduct

Because of the *ex parte* nature of the patent application process, applicants have an express “duty of candor and good faith” that governs their dealings with the PTO. *See* 37 C.F.R. § 1.56(a) (“Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the [PTO]”). *See also Fox Indus., Inc. v. Structural Pres. Sys., Inc.*, 922 F.2d 801, 804 (Fed. Cir. 1990) (“The duty of candor extends throughout the patent’s entire prosecution history.”). This duty of candor and good faith requires that the applicant disclose to the PTO all information “material to patentability.” *See* 37 C.F.R. § 1.56(a) (“duty of candor and good faith . . . includes a duty to disclose to the [PTO] all information known to that individual to be material to patentability as defined in this section.”).<sup>5</sup> When the duties set forth in Section 1.56 are breached, the patent is said to have been procured through inequitable conduct and is, therefore, unenforceable. *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1182 (Fed. Cir. 1995).

Where the inequitable conduct alleged is the failure to disclose relevant prior art to the PTO, the defendant must prove by clear and convincing evidence that: (1) the prior art at issue is material; (2) the applicant had knowledge of the prior art; (3) the applicant knew of its materiality; and (4) the applicant failed to disclose the prior art with the intent to mislead the PTO. *FMC Corp. v. Manitowic Co., Inc.*, 835 F.2d 1411, 1415 (Fed. Cir. 1987); *Videojet Sys.*

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<sup>5</sup> Under Section 1.56, information is “material to patentability” if its is not cumulative *and* the information (1) “establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim”; or (2) “refutes, or is inconsistent with, a position the applicant takes in opposing an argument of unpatentability relied on by the PTO or asserting an argument of patentability.” 37 C.F.R. § 1.56(b).

*Int'l, Inc. v. Inkjet, Inc.*, 1996 WL 556740, at \*4 (N.D. Ill. Sep. 27, 1996). Materiality and intent are threshold showings. *Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1439 (Fed. Cir. 1991). If the party with the burden of proof makes the threshold showing by clear and convincing evidence, then the court must balance materiality and intent -- the more material the omission, the less culpable the intent required, and vice versa. *Id.* Significantly, the courts have warned that summary judgment is not to be granted if the facts surrounding materiality or intent are reasonably disputed. *Baker Oil Tools, Inc. v. Geo Vann, Inc.*, 828 F.2d 1558, 1566 (Fed. Cir. 1987); *KangaROOS U.S.A., Inc. v. Caldor, Inc.*, 778 F.2d 1571, 1577 (Fed. Cir. 1985).

#### **B. Defendants' Evidence of Alleged Inequitable Conduct**

In response to Finnsugar's motion, Defendants have identified several instances of alleged inequitable conduct before the PTO, including: (1) concealment of prior commercial activity sufficient to invoke the on sale bar under § 102(b); and (2) concealment of known prior art inconsistent with the Applicants' arguments to the PTO.

##### **1. Prior Commercial Offers for Sale**

Defendants have discharged their burden with respect to the inequitable conduct claim based on the prior commercial offer to sell the technology embodied in the '398 patent. *First*, Finnsugar's offer to install the technology at SMSC's Renville facility was "material to patentability" under Rule 1.56 because it "establishes . . . a prima facie case of unpatentability of a claim." Indeed, Judge Coar determined that the offer to install the M9B3 process was sufficient to invoke the on sale bar under § 102(b). *Finnsugar I*, 2001 WL 303683, at \*\*3-7.

*Second*, Finnsugar was aware of the offer to install the M9B3 process at SMSC's Renville facility. At a minimum, inventors Hyoky and Monten were directly involved in the

proposal to SMSC. (See R. 93-1, Defs.' LR 56.1(a)(3) Statement on § 102(b), Zitterkopf Dep. at 62-63; R. 107-1, Pl.'s LR 56.1(b)(3) Resp. on § 102(b), ¶¶ 49, 53.)

*Third*, there is evidence that suggests that Finnsugar knew that the commercial proposals and negotiations with SMSC were material. Specifically, Finnsugar likely knew that the offer to install the M9B3 process at the Renville plant was material because that process embodied the technology described in the '398 patent. As Judge Coar found,

Each element of claims 1, 7, and 9-14 "of the '398 patent is found in the M9B3 configuration depicted in the diagram in the Joint Research Report." Finnsugar does not dispute that "the process described in the December 1993 Report was the very same one set forth in Example 3 of the '398 patent."

*Finnsugar I*, 2001 WL 303683, at \*2 (internal citations omitted). *See also id.* ("The M9B3 process developed into the '398 patent."). Indeed, inventor Hyoky testified that there were no differences between the Enclosure 2 proposal shared with SMSC during the April 1993 meeting with Zitterkopf and the '398 invention. (See R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Hyoky Dep. at 82-83 ("Differences. No. I think that this is, that these are the thoughts that led to the development of the project.").)

Finnsugar suggests that the commercial proposals and negotiations with SMSC were not material (or that Finnsugar was not aware that they were material) because they were "experimental." Specifically, Finnsugar argues that it intended merely to conduct a joint research project with SMSC. Judge Coar, however, rejected that argument "because both the Supreme Court and the Federal Circuit have rejected the 'experimental stage' doctrine, whereby a patentee may avoid invalidity under the on sale bar by coming forward with evidence that its use of invention was experimental, where the commercial exploitation was not incidental to the primary

purpose of experimentation.” *Finnsugar I*, 2001 WL 303683, at \*5 (citations omitted). *See also id.* at \*6 (Finnsugar’s proposal constituted a commercial offer for sale because it “offered to install the MB393 process at SMSC in order to gain a return.”).

*Finally*, there is evidence the Applicants did not disclose the commercial proposals and negotiations with SMSC and that the Applicants acted with the intent to mislead the PTO. As Defendants point out, there is no reference in the PTO record of the offer to install the technology embodied in the ‘398 patent at the Renville plant before the critical date. To the contrary, the Applicants argued to the PTO that the prior art “do[es] not disclose or suggest this claimed two stage separation process.” (See R. 118-1, Pl.’s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 6. *See also* R. 98-1, Defs.’ LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-90.)

Finnsugar contends that it did not intend to mislead the PTO but offers no credible explanation for its failure to disclose the commercial proposals and negotiations with SMSC. This failure supports an inference of intent to mislead the PTO. *See Podiatry Lab. v. KLM Labs.*, 984 F.2d 1182, 1193 (Fed. Cir. 1993) (“Absent explanation, the evidence of a knowing failure to disclose sales that bear all the earmarks of commercialization reasonably supports an inference that the inventor’s attorney intended to mislead the PTO.”); *LaBounty Mfg. v. U.S. Int’l Trade Comm’n*, 958 F.2d 1066, 1076 (Fed. Cir. 1992) (deceptive intent shown where a patentee withheld references and made an argument for patentability that could not have been made had the art been disclosed); *see also GFI, Inc. v. Franklin Corp.*, 265 F.3d 1268, 1275 (Fed. Cir. 2001) (“A mere denial of intent to mislead (which would defeat every effort to establish inequitable conduct) will not suffice [to defeat a claim of inequitable conduct].”).

The inference of intent to mislead the PTO is strengthened because of the indisputable materiality of the commercial activity and the clear proof that Finnsugar was aware of it. *See Critikon, Inc. v. Becton Dickinson Vascular Access, Inc.*, 120 F.3d 1253, 1257 (Fed. Cir. 1997) (“[A] patentee facing a high level of materiality and clear proof that it knew or should have known of that materiality can expect to find it difficult to establish subjective good faith sufficient to prevent the drawing of an inference of intent to mislead.”); *FMC Corp. v. Manitowoc Co.*, 835 F.2d 1411, 1416 (Fed. Cir. 1987) (same effect).

Finnsugar argues that intent cannot be inferred merely from the failure to disclose the prior commercial proposals and negotiations with SMSC. Contrary to Finnsugar’s suggestion, however, Defendants do point to other evidence of intent to mislead the PTO. Among other things, Defendants point to Finnsugar’s lack of any credible explanation for its failure to disclose the commercial activity and the fact that the activity arguably contradicts Finnsugar’s affirmative representations to the PTO concerning the prior art. Thus, Defendants’ evidence of intent is not limited to the mere failure to disclose the commercial proposals and negotiations with SMSC.

In sum, Defendants’ evidence is sufficient to defeat summary judgment. *See Paragon Podiatry Lab. v. KLM Lab.*, 984 F.2d 1182, 1190 (Fed. Cir. 1993) (“Intent need not, and rarely can, be proven by direct evidence.”); *Merck & Co. v. Danbury Pharm., Inc.*, 873 F.2d 1418, 1422 (Fed. Cir. 1989) (evidence in the form of a “smoking gun” is not required to prove intent). *See also KangaROOS U.S.A.*, 778 F.2d at 1573 (disputed question of intent not appropriate resolution on summary judgment).



## 2. Prior Art

Defendants have likewise discharged their summary judgment burden with respect to the inequitable conduct claim based on Finnsugar's alleged failure to disclose prior art. *First*, Defendants have adduced evidence that Kampen and Barker are material. After the patent examiner initially rejected the '398 patent application, the Applicants argued the prior art "neither discloses nor suggests the claimed two stage separation method." (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 6. *See also* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-90.)

Defendants have shown that Kampen and Barker undermine this claim. Defendants have presented evidence that Kampen discloses a two-stage separation system and that the "first chromatographic separation system" is an SMB process. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Cleary § 103 Dec., ¶ 7.)<sup>6</sup> And Defendants have demonstrated that Barker discloses use of a first SMB separator to produce a stream for further purification in a second, separate SMB separator. (*Id.*, Cleary § 103 Dec. ¶ 38; *id.* Ex. 90, at Col. 1/ln 57-61, Col. 6/ln 10 to Col. 7/ln 43.) Thus, Defendants have presented evidence that the prior art "refutes, or is inconsistent with" the Applicant's position before the PTO.

*Second*, Defendants have demonstrated that the Applicants were aware of Kampen and Barker. Inventor Paananen discussed Kampen in a patent application filed on June 7, 1995 -- the same day that the '398 patent application was filed. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on

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<sup>6</sup> Finnsugar argues that Kampen is cumulative and, therefore, immaterial in light of International Publication No. WO 94/17213 ("the '213 application"), which was disclosed to the PTO. However, Defendants have presented evidence that the '213 application does not disclose a fraction being taken from a first loop and then provided to a second loop for further separation. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Cleary '213 Decl., ¶¶ 5-8.)

Inequitable Conduct, Ex 95.) Further, Inventors Heikkila and Kuisma cited Kampen in a paper filed with a patent application on July 18, 1996 -- while the '398 patent application was still pending. (*Id.*, Ex. 98.) Likewise, Defendants have shown that the Applicants were aware of Barker before they filed the '398 patent application. Inventors Heikkila, Hyoky and Kuisma identified Barker in a 1990 Disclosure Statement submitted with the application for the '957 patent. (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 5, at 957-128.)

*Third*, Defendants have pointed to evidence that the Applicants knew that Kampen and Barker were material. With respect to Barker, the Applicants' knowledge of its materiality is confirmed by the belated disclosure itself, where they conceded that Barker was "relevant." (*See* R. 118-1, Pl.'s LR 56.1(a)(3)(B) Reply on Inequitable Conduct, ¶ 50.) With respect to Kampen, Defendants suggest that because the Applicants were aware of Kampen and because Kampen was material, the Applicants must have known Kampen was material. Given the Defendants' evidence of materiality and clear proof that the Applicants were aware of Kampen, this Court agrees that Defendants' evidence is sufficient to withstand summary judgment on this issue. The Applicants argued to the PTO that "[t]he capability of interrupting the flow into or out of the columns neither discloses nor suggests the claimed two stage separation method." (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-89). But Kampen did disclose the purification of a second fraction from an SMB process in a second loop as claimed in the '398 patent. (*Id.*, Cleary § 103 Dec. at ¶¶ 7-13.)

*Finally*, there is evidence that the Applicants failed to disclose Kampen and Barker and that the Applicants acted with the intent to mislead the PTO. There is, for example, no dispute that Applicants failed to disclose Kampen to the PTO. The Applicants did disclose Barker -- but

did so only after the initial Notice of Allowability issued. Further, this disclosure did not address how Barker impacted the Applicants' prior representations to the PTO and instead merely suggested that "the information . . . is believed to be no more relevant than that already considered by the examiner." (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6, at 398-115.)

Defendants have pointed to sufficient evidence that the Applicants sought to mislead the PTO by withholding the prior art. For example, the belated disclosure of Barker, so soon after the initial Notice of Allowability, and the non-standard certification that accompanied this disclosure<sup>7</sup> together support the inference that they sought to mislead the PTO. Further, Defendants maintain that the Applicants lack any credible explanation for their failure to disclose Kampen and Barker to the PTO. For example, when asked for "any reason why [Barker] was not disclosed before the Notice of Allowability," inventor Paananen answered, "I can't." (*See* R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Paananen Dep. at 333.) And Praiss, who prepared responses in the earlier '957 patent application (which included a reference to Barker), had no testimony to offer "one way or the other" as to why that prior art was not included in the initial disclosure for the '398 patent application. (*Id.*, Praiss Dep. at 92.) This lack of any credible explanation for the failure to disclose Kampen and Barker supports an inference of intent to mislead the PTO. *Podiatry Lab.*, 984 F.2d at 1193; *LaBounty Mfg.*, 958 F.2d at 1076.

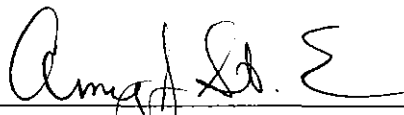
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<sup>7</sup> This certification did not conform to the requirements of 37 C.F.R. § 1.97, instead denying prior knowledge merely on "information and belief." (R. 98-1, Defs.' LR. 56.1(b)(3) Resp. on Inequitable Conduct, Ex. 6 at 398-115.)

CONCLUSION

Plaintiff's Motion for Summary Judgment on Defendants' inequitable conduct claim is denied.

Dated: December 23, 2002

  
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AMY J. ST. EVE  
U.S. District Court Judge